

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims:

Listing of Claims:

1. (Currently amended) An interference resistant infrared extension system comprising:

one or more infrared photodetectors configured to detect impinging infrared light having a signal frequency modulated by data;

an amplifier in electrical communication with said one or more IR photodetectors, wherein said amplifier is tuned to amplify electrical signals generated by said one or more IR photodetectors;

one or more infrared light emitters in electrical communication with said amplifier, wherein in said one or more infrared light emitters are configured to emit infrared light in response to electrical signals from said amplifier; and

an infrared bandpass filter configured to filter light impinging on said one or more IR photodetectors, wherein said infrared bandpass filter is configured to have a center wavelength falling within the range of about 920nm to about 980nm; an 80 percent bandwidth of approximately 10nm; and a 50 percent bandwidth of approximately 20nm.

2. (Original) The interference resistant infrared extension system of claim 1, wherein said 50 percent bandwidth of said infrared bandpass filter encompasses the about 940nm to about 960nm wavelength range.

3. (Original) The interference resistant infrared extension system of claim 1, wherein said amplifier is configured to respond to one or more of the following signal frequencies 32KHz, 40KHz, and 56KHz.

4. (Currently amended) An interference resistant infrared receiver, comprising:

(a) at least one infrared photodetector configured to detect impinging infrared light of a desired wavelength;

(b) an amplifier, coupled to the at least one infrared photodetector, for amplifying an electrical signal generated by the at least one infrared photodetector; and

(c) a bandpass filter, coupled to the at least one infrared photodetector, wherein the desired impinging infrared light passes through the bandpass filter before impinging on the at least one infrared photodetector, wherein the bandpass filter is configured to pass desired impinging infrared light having a center wavelength within a range used by home and office infrared control systems and block undesired impinging wavelengths of light outside of this range, and wherein the bandpass filter passes light falling within a wavelength range of about 920nm to about 980nm, and wherein the bandpass filter has an 80 percent bandwidth about 10 nm wide.

5. (Original) The infrared receiver of claim 4, wherein more than one infrared photodetector is used to increase the sensitivity of the receiver to the impinging infrared light.

6. (Original) The infrared receiver of claim 5, wherein a sensitivity of the amplifier is increased such that the sensitivity of the receiver is increased with respect to the impinging infrared light.

7-8. (Canceled)

9. (Currently amended) The infrared receiver of claim 8 4, wherein the bandpass filter has a 50 percent bandwidth about 20nm wide.

10. (Original) The infrared receiver of claim 9, wherein the amplifier further comprises an automatic gain control circuit for accepting impinging infrared light of different intensities and generating electrical signals of substantially similar signal strengths therefrom.

11. (Original) The infrared receiver of claim 10, wherein a first infrared light emitter emits light of a first wavelength and a second infrared light emitter emits light of a second wavelength.

12-19. (Canceled)